No. 200200217

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

DLF International Seeds and Rutgers,
The State University of New Jersey

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

RYEGRASS, PERENNIAL

*'All*Star^{2}'*

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this fifteenth day of June, in the year two thousand and five.*

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

JAB 3/14/05

1. NAME OF OWNER
DLF ~~Cebeco~~ International Seeds, ~~Inc.~~ and Rutgers, The State University of New Jersey (CST: 5/03/2005)

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
CIS-PR 78

3. VARIETY NAME
All*Star^2

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
PO Box 229
Halsey, OR 97348
USA

5. TELEPHONE *(include area code)*
541-369-2251

6. FAX *(include area code)*
541-369-2251

FOR OFFICIAL USE ONLY

PVPO NUMBER
200200217

FILING DATE
August 8, 2002

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Oregon

9. DATE OF INCORPORATION
1972

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
Stephen W. Johnson
DLF ~~Cebeco~~ International Seeds, Inc.
PO Box 229
Halsey, OR 97348

JAB 3/14/05

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 2705.-
DATE 8/8/2002

CERTIFICATION FEE:
$ 432.00
DATE 4-26-2005

11. TELEPHONE *(Include area code)*
541-369-2251

12. FAX *(Include area code)*
541-369-2251

13. E-MAIL
STEVEJ@intlseed.com

14. CROP KIND *(Common Name)*
Perennial Ryegrass

15. GENUS AND SPECIES NAME OF CROP
Lolium perenne

16. FAMILY NAME *(Botanical)*
Graminae

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of Variety
d. ☒ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($2,705), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(e) of the Plant Variety Protection Act)*
☐ YES *(If "yes", answer items 20 and 21 below)* ☒ NO *(If "no", go to item 22)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? ☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, *etc.* ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☒ YES ☐ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☒ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER	SIGNATURE OF OWNER
Stephen W. Johnson	
NAME *(Please print or type)*	NAME *(Please print or type)*
Stephen W. Johnson 7-22-02	
CAPACITY OR TITLE / DATE	CAPACITY OR TITLE / DATE
Director of Research	

S&T-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (04-01) which is obsolete. *(See reverse for instructions and information collection burden statement)*

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $2,705 ($320 filing fee and $2,385 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

19. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

22. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

23. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

21. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

USDA AUG 20 '02

~~**22. CONTINUED FROM FRONT**~~ ~~*(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety*~~ *(including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

USA September 14, 2001

23. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed.htm

Exhibit A

ORIGIN AND BREEDING HISTORY OF ALL*STAR[2] (CIS-PR 78) PERENNIAL RYEGRASS

All*Star[2] perennial ryegrass (*Lolium perenne* L.) is a turf-type cultivar selected from the maternal progenies of 26 clones. Over 80 percent of the parental germplasm used in the development of All*Star[2] originated from plants selected from old turfs of the Mid-Atlantic region of the United States. Additional germplasm traces to plants selected from or related to Manhattan II, Citation II All*Star, Jazz, Loretta and PI 231,597 from Greece. Most of the parental germplasm of Manhattan II, Citation II, All*Star and Jazz also traces to collections from old turfs in the United States.

The majority of the parental germplasm of All*Star[2] originated from a program to improve perennial ryegrass for turf use initiated by the New Jersey Agricultural Experiment Station. Starting in 1962 a search was made to locate elite perennial ryegrass plants thriving in old turfs throughout much of the United States. The most promising plants were found in warm, humid parts of New York City, New Jersey, Pennsylvania and Maryland. The size, location and appearance of these plants indicated that they originated from seedings made prior to1940. Clonal evaluation and progeny tests conducted under turf maintenance showed that they had dramatically improved turf performance compared to any other perennial ryegrass available at the time, a darker green color, a lower growth profile and improved resistance to many of the diseases, insects and environmental stresses common to the Mid-Atlantic region of the United States.

An examination of thousands of old lawns, parks, sports fields, cemeteries and golf courses starting in 1962 showed that of the billions of ryegrass seeds used to establish these turfs only a few produced plants able to persist and grow to produce attractive individual plants that were at least three feet in diameter. The most attractive plants were found east of the sheep meadow in Central Park in New York City, in southeast Pennsylvania (the parents of Pennfine and Birdie perennial ryegrasses); in Paterson Park, Riverside Park and a school playground in Baltimore, Maryland; the campus lawn of the University of Maryland, College Park, Maryland; Warinaco Park, Elizabeth, New Jersey; and the Colonia and Atlantic City golf courses near Colonia New Jersey and Atlantic City New Jersey.

Tillers obtained from these selected plants were subsequently evaluated in frequently mowed turf trials. Plants obtained from crosses of the best performing clones were subsequently selected to initiate a long-term germplasm enhancement program using many cycles of phenotypic and genotypic recurrent selection. Phenotypic selection involved (1) selection of darker green, more compact, disease-free, highly tillering seedlings during winter greenhouse tests; (2) inoculation and selecting for resistance to crown rust; (3) selection of attractive, leafy lower-growing, dark-green plants showing higher seed yielding potential in spaced-plant nurseries; (4) selecting attractive plants surviving in closely mowed turf trials subjected to stresses of heat, drought, disease, insects and winter cold. Genotypic selection included extensive evaluation of single-plant progenies in closely mowed turf trials and spaced-plant nurseries. Additional germplasm was added to

the program as opportunities developed. Separated breeding composites were developed to help maintain genetic diversity and reduce inbreeding.

Following varying cycles of phenotypic and genotypic recurrent selection a several plants were crossed at Adelphia, New Jersey in 1997. Each plant crossed was harvested individually. A portion of the seed from 35 of the plants was used to establish progeny turf plots at Adelphia in the fall of 1997. This group of progenies was designated SJSPR and the individual progenies were numbered 1-35. Residual seed from the 35 SJSPR progenies was sent to Cebeco International Seeds, Inc.'s research station near Tangent, Oregon where in the fall of 1997 it was used to establish a spaced-plant nursery consisting of three replications of 30 plants from each family.

During the spring of 1998 96 fine leaved dark green plants were selected from 26 of the families in the SJSPR nursery that had good performance in turf plots in New Jersey. The families and the number of plants from the family are listed below:

SJSPR Family	No. plants Selected	SJSPR Family	No. plants Selected
2	5	18	4
3	2	20	1
5	11	21	4
6	3	22	2
7	6	23	5
9	8	24	3
10	4	25	1
11	5	26	4
12	1	28	6
13	1	30	4
14	8	32	2
15	1	34	1
16	1	35	3

These selected plants were moved to an isolated nursery and allowed to randomly inter-pollinate. Following seed set all of the plants were harvested. A bulk was then made of all of the seed of the 80 highest seed yielding plants in the cross. In the fall of 1998 seed from the bulk was used to establish a 2000 plant spaced-plant nursery near Junction City, Oregon. Prior to anthesis in 1999 approximately 30% of the plants in the nursery were removed. Plants that were rogued from the nursery had one or more of the following traits: coarse leaves, lighter green color, high susceptibility to stem rust, or susceptibility to leaf spot. The plants that remained in the nursery were allowed to interpollinate. Seed harvested from these plants was bulk harvested and constitutes the stock seed for the variety All*Star2 (experimental CIS-PR 78). A portion of this seed is maintained by Cebeco International Seeds and may be used to plant new breeder seed fields when necessary.

The variety All*Star^2 has appeared uniform and stable during multiplication from breeder to foundation generations. All*Star^2 has a small percentage (<0.25%) of plants that are somewhat taller and coarser than the rest of the population. The percentage of these plants appears to be stable when seed is multiplied from breeder to foundation generation.

Exhibit B

Novelty Statement

All*Star^2 perennial ryegrass (*Lolium perenne* L.) is a medium-late variety developed for use in turf.

All*Star^2 is most similar to Brightstar II and Gator 3.

Differences between All*Star^2 and Brightstar II include, but are not necessarily limited to the following:

1. All*Star^2 has significantly greater resistance to leaf spot when the cultivars are grown as turf in western Oregon (7.1 vs. 5.3 on 9=no disease scale).

Differences between All*Star^2 and Gator 3 include, but are not necessarily limited to the following:

1. All*Star^2 has a significantly more narrow 10 seed width (13.1 mm vs. 14.2 mm).

FORM APPROVED: OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN AND SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Ryegrass)

OBJECTIVE DESCRIPTION OF CULTIVARS
RYEGRASS
(Lolium spp.)

Jas 3/14/05

NAME OF APPLICANT(S)
~~DLF Cebeco~~ International Seeds, ~~Inc.~~ and Rutgers, The State University of New Jersey (BT:5/3/2005)

ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code)*
PO Box 229
Halsey, OR 97348

VARIETY NAME OR TEMPORARY DESIGNATION
All*Star^2

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PVPO NUMBER
200200217

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in first box (e.g. [0][8][9] or [0][9]) when number if either 99 or less or 9 or less. Descriptions of characters should represent those that are typical for the variety. Ranges may be given also. Measured data should be for SPACED PLANTS. Give additional description for all characteristics that cannot be adequately described in the form below. Append all petrinent comparative trial and evaluation data. The symbol "▲" indicates decimal.

1. SPECIES:

[2] 1 = L. MULTIFLORUM (annual or Italian: includes Westerwoldicum) 2 = L. PERENNE (perennial) 3 = L. RIGIDUM (includes Wimmera)
4 = HYBRID (of species) _____ 5 = OTHER *(Specify)* _____

2. PLOIDY:

[1] 1 = DIPLOID 2 = TETRAPLOID 3 = OTHER *(Specify)* _____

3. DURATION:

[3] 1 = ANNUAL OR BIENNIAL 2 = SHORT LIVED PERENNIAL (3-4 years) 3 = PERENNIAL (more than 4 years)

STANDARD CULTIVARS

1 = GULF 2 = WIMMERA 62 3 = LINN 4 = PELO
5 = NORLEA 6 = ABERYSTWYTH S-23 7 = MANHATTAN 8 = PENNFINE

4. MATURITY (50% HEADED) Use standards from above for comparison:

[6] 1 = VERY EARLY 3 = EARLY 5 = MEDIUM 7 = LATE 9 = VERY LATE

[0][5] DAYS EARLIER THAN . . . . . [7] STANDARD CULTIVAR
[1][8] DAYS LATER THAN . . . . . [3] STANDARD CULTIVAR

5. MATURE PLANT HEIGHT (Use standard cultivars from above) :

[5][0▲2] CM. HIGH [8▲6] CM. SHORTER THAN Pinnacle . . . [ ] STANDARD CULTIVAR
[ ] CM. TALLER THAN . . . . . [ ] STANDARD CULTIVAR

6. PERCENT WINTER DAMAGE (estimated as percent of the area appearing dead). Use standard cultivars from above for comparison:

[0] PERCENT DAMAGE OF APPLICATION CULTIVAR (No winter damage observed in nursery grown in western Oregon)
[ ] PERCENT DAMAGE OF . . . . . [ ] STANDARD CULTIVAR

7. TURF DENSITY Use standard cultivars from above:

[3][7][6] TILLERS PER 100 SQ. CM.
[ ] LESS TILLERS PER 100 SQ. CM. THAN . . . . [ ] STANDARD CULTIVAR
[5][7] MORE TILLERS PER 100 SQ. CM. THAN . . . [ ] STANDARD CULTIVAR Derby Supreme

8. FLAG LEAF (at full growth) Use standard cultivars from above:

[1][2▲8] CM. LENGTH (from ligule to tip) [3▲2] MM. WIDTH (at widest point)
[3▲1] CM. SHORTER THAN Derby Supreme . . [ ] STANDARD CULTIVAR
[ ] CM. LONGER THAN . . . . . [ ] STANDARD CULTIVAR
[ ] MM. NARROWER THAN . . . . . [ ] STANDARD CULTIVAR
[ ] MM. WIDER THAN . . . . . [ ] STANDARD CULTIVAR

[6] FLAG LEAF AT BOOT STAGE: 1 = DEFLEXED 3 = RECURVED 5 = HORIZONTAL 7 = SEMI-ERECT 9 = ERECT

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STANDARD CULTIVARS

1 = GULF	2 = WIMMERA 62	3 = LINN	4 = PELO
5 = NORLEA	6 = ABERYSTWYTH S-23	7 = MANHATTAN	8 = PENNFINE

9. LEAVES:

[3] VERNATION: 1 = LEAVES ROLLED IN YOUNG SHOOTS; 2 = LEAVES SEMI-ROLLED (folded with rolled edges); 3 = LEAVES FOLDED IN YOUNG SHOOTS

[92] % PLANTS WITH ANTHOCYANIN IN LOWER LEAF SHEATH

[3] FOLIAGE COLOR: 1 = YELLOW GREEN; 2 = MEDIUM GREEN; 3 = BLUE GREEN

10. SPIKE:

[155] MM. SPIKE LENGTH (tip to internode below lowest floret)

[54] MM. SHORTER THAN ..... [ ]

MM. LONGER THAN ..... [ ]

Derby Supreme
USE STANDARD CULTIVARS FROM ABOVE

[2593] MG. PER TEN SPIKES (trimmed to internode below lowest floret)

[737] MG. LIGHTER PER TEN SPIKES THAN ..... [3]

[374] MG. HEAVIER PER TEN SPIKES THAN Elka ..... [ ]

USE STANDARD CULTIVARS FROM ABOVE

[11] FLORETS PER SPIKELET

PERCENTAGE OF PLANTS WITH:

RACHIS: [100] % SMOOTH [0] % ROUGH

SPIKE COLOR: [45] % GREEN [55] % PURPLE

LEMMA: [0] % AWNED [0] MM. AWN LENGTH

[84] MM. GLUME LENGTH

[2] 1 = SPIKELET LENGTH NEARLY EQUAL TO OUTER GLUMES; 2 = SPIKELET LENGTH MUCH LONGER THAN OUTER GLUMES

11. COLEOPTILE:

[50] % PLANTS WITH ANTHOCYANIN IN COLEOPTILE

12. ANTHER COLOR:

[80] % PLANTS WITH WHITE ANTHERS

[16] % PLANTS WITH YELLOW ANTHERS

[4] % PLANTS WITH PURPLE ANTHERS

13. ROOT AND PLANT CHARACTERS:

[55] % PLANTS WITH PROSTRATE GROWTH HABIT

[003] % PLANTS WITH FLUROESCENT ROOTS

[45] % PLANTS WITH UPRIGHT GROWTH HABIT

14. SEED:

[1934] MG. PER 1,000 SEED

[470] MM. TOTAL LENGTH OF 10 SEEDS

[131] MM. TOTAL WIDTH OF TEN SEEDS

20020217

16. DISEASE (0 = NOT TESTED, 2 = HIGHLY SUSCEPTIBLE, 4 = MODERATELY SUSCEPTIBLE, 6 = MODERATELY RESISTANT, 8 = HIGHLY RESISTANT):

7	CROWN RUST (Puccinia coronata)	7	DOLLAR SPOT (Sclerotinia)	0	BROWN PATCH (Rhizoctonia)
7	LEAF SPOT (Helminthosporium)	0	MILDEW	0	OTHER *(Specify)*
0	SNOW MOLD (Typhula)	0	RED THREAD (Corticium)		

16. INSECT (0 = NOT TESTED, 2 = HIGHLY SUSCEPTIBLE, 4 = MODERATELY SUSCEPTIBLE, 6 = MODERATELY RESISTANT, 8 = HIGHLY RESISTANT):

0 *(Specify)* _____

17. GIVE RESEMBLANCE VALUE IN LEFT COLUMN AND VARIETY CODE NUMBER IN RIGHT COLUMN FOR VARIETY WITH WHICH COMPARISON IS MADE (1 = LESS THAN, 2 = SAME AS, 3 = MORE ERECT, MORE RESISTANT, DENSER, MORE PERSISTENT, DARKER OR GREATER HEIGHT.):

RESEMBLANCE	CHARACTER	SIMILAR VARIETY	
2	PLANT HABIT (erectness)	9	1 = GULF
2	TILLERING	9	2 = WIMMERA 62
2	WINTER HARDINESS	9	3 = LINN
2	HIGH TEMP. STRESS RESISTANCE	9	4 = PELO
2	TURF PERSISTENCE	9	5 = NORLEA
2	PLANT COLOR	9	6 = ABERYSTWYTH S-23
2	VERTICAL SEEDLING GROWTH RATE	9	7 = MANHATTAN
2	CROWN DENSITY	9	8 = PENNFINE
2	MOWER SHREDDING RESISTANCE	9	9= Brightstar II

18. GIVE AREA OF ADAPTATION AND INTENDED USE: All*Star 2's area of adaptation includes western Oregon, turf.

19. GIVE AREA TEST RESULTS PRESENTED FROM: Tangent, Oregon - Concord silty loam

COMMENTS:

Exhibit D

Table 1.

Heading dates of perennial ryegrass varieties grown near Tangent, Oregon in 2000 and 2001.

NAME	2000 Heading Date	2001 Heading Date	00-01 Heading Date Average
Linn	May 2	May 8	May 5
Manhattan II	May 15	May 19	May 17
Derby Supreme	May 16	May 18	May 17
Pinnacle	May 16	May 19	May 18
Stellar	May 17	May 21	May 19
Essence	May 18	May 24	May 21
Kokomo	May 20	May 23	May 22
Brightstar II	May 20	May 24	May 22
All*Star2	**May 21**	**May 25**	**May 23**
Gator3	May 21	May 25	May 23
Cabo	May 22	May 26	May 24
CIS-PR 84	May 22	May 26	May 24
CIS-PR 75	May 22	May 27	May 25
Manhattan	May 27	May 29	May 28
Elka	June 5	June 6	June 6

Exhibit D

Table 2.

Morphology of perennial ryegrass varieties grown near Tangent, Oregon in 2000 and 2001. Trial consisted of three replications with 20 plants per replication. LSD determined from two-way analysis of variance.

NAME	2000 Plant Height (cm)	2001 Plant Height (cm)	00-01 Avg. Plant Height (cm)	2000 Spike Length (cm)	2001 Spike Length (cm)	00-01 Avg. Spike Length (cm)	2000 First Internode Length (cm)	2001 First Internode Length (cm)	00-01 Avg. First Internode Length (cm)	2000 Flag Leaf Length (cm)	2001 Flag Leaf Length (cm)	00-01 Avg. Flag Leaf Length (cm)	2000 Flag Leaf Width (mm)	2001 Flag Leaf Width (mm)	00-01 Avg. Flag Leaf Width (mm)
Linn	83.2	70.2	76.7	22.4	17.9	20.1	26.5	17.9	22.2	15.7	14.2	14.9	3.6	3.5	3.5
Derby Supreme	79.3	66.4	72.8	24.0	17.8	20.9	25.0	17.7	21.4	17.2	14.5	15.9	3.4	4.1	3.8
Manhattan II	71.2	61.4	66.3	22.3	16.6	19.4	23.4	15.6	19.5	15.1	11.5	13.3	3.3	3.8	3.6
Pinnacle	64.1	53.4	58.8	19.2	14.7	16.9	23.2	14.1	18.7	14.1	11.9	13.0	3.2	3.4	3.3
Essence	63.3	48.9	56.1	19.4	15.7	17.5	22.1	14.2	18.1	14.6	12.0	13.3	2.9	4.1	3.5
Manhattan	62.8	52.3	57.6	20.3	15.6	17.9	18.3	12.4	15.4	15.6	10.9	13.2	3.5	4.0	3.8
Brightstar II	59.2	47.9	53.5	16.1	15.4	15.8	17.4	11.5	14.4	11.0	12.3	11.7	2.7	3.8	3.3
All*Star2	**57.3**	**43.0**	**50.2**	**16.2**	**14.7**	**15.5**	**16.6**	**14.9**	**15.8**	**14.1**	**11.5**	**12.8**	**2.7**	**3.8**	**3.2**
CIS-PR 84	57.3	45.2	51.3	17.0	14.3	15.7	18.3	14.1	16.2	13.8	12.8	13.3	3.0	3.8	3.4
Gator 3	56.7	44.7	50.7	17.1	14.8	16.0	16.5	16.8	16.6	13.6	11.5	12.5	3.1	4.3	3.7
CIS-PR 75	56.3	44.2	50.3	17.9	13.5	15.7	19.0	14.6	16.8	12.9	9.7	11.3	3.0	3.8	3.4
Stellar	56.2	45.8	51.0	16.3	13.6	15.0	19.0	16.1	17.6	13.2	10.9	12.0	2.7	3.7	3.2
Cabo	55.9	44.6	50.2	16.9	13.8	15.3	18.3	17.5	17.9	12.5	12.0	12.2	3.2	3.9	3.5
Kokomo	55.5	44.5	50.0	17.2	13.3	15.2	16.3	10.1	13.2	14.7	10.6	12.6	2.9	3.6	3.3
Elka	42.7	39.0	40.9	16.5	14.6	15.6	12.0	11.4	11.7	12.6	11.2	11.9	2.9	4.4	3.6
LSD @ 0.05	**6.1**	**3.2**		**2.3**	**1.9**		**3.7**	**3.7**		**2.9**	**2.6**		**0.5**	**0.9**	

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Table 3.

Tillers per 100 square centimeters of
Perennial ryegrass varieties grown
under turf culture near Tangent, Oregon

NAME	1999 Trial Tillers per 100 sq cm	2000 Trial Tillers per 100 sq cm	Average Tillers per 100 sq cm
Cabo	417	374	396
All*Star2	**397**	**354**	**376**
CIS-PR 84	382	350	366
Gator 3	377	362	369
CIS-PR 75	370	364	367
Top Hat	364	358	361
Stellar	363	347	355
Kokomo	359	369	364
Brightstar II	358	323	340
Essence	352	311	332
Derby Supreme	294	265	279
LSD @ 0.05	**68**	**58**	

Exhibit D
Table 4.

Ratings of perennial ryegrass varieties grown under turf culture near Tangent, Oregon. Three replication trial established September 1999. LSD determined by two-way analysis of variance.

NAME	2000 Color 1-9 9=dark green	2001 Color 1-9 9=dark green	00-01 average Color 1-9 9=dark green	2000 Leaf Spot 1-9 9=no disease	2001 Leaf Spot 1-9 9=no disease	00-01 average Leaf Spot 1-9 9=no disease
All*Star2	**7.5**	**7.8**	**7.7**	**7.7**	**6.5**	**7.1**
CIS-PR 84	7.7	7.5	7.6	7.0	7.0	7.0
Stellar	6.8	7.3	7.1	7.7	6.5	7.1
Cabo	8.0	7.7	7.8	6.3	5.8	6.1
Pizzazz	7.7	6.8	7.3	7.3	6.7	7.0
Gator 3	7.0	6.8	6.9	7.8	6.5	7.2
Kokomo	6.8	6.7	6.8	7.7	7.0	7.3
R 8000	7.0	6.8	6.9	7.2	5.7	6.4
CIS-PR 75	8.0	6.8	7.4	6.8	5.5	6.2
PST-2BR	6.7	6.5	6.6	7.7	6.0	6.8
PST-2L96	7.2	7.0	7.1	7.3	5.2	6.3
PST-2A6B	6.8	6.5	6.7	5.7	5.3	5.5
CIS-PR 83	6.8	6.5	6.7	4.7	6.0	5.3
Brightstar II	7.0	6.7	6.8	5.8	4.7	5.3
PST-CRL	6.5	6.7	6.6	5.8	5.5	5.7
CIS-PR 82	6.3	7.2	6.8	5.8	5.7	5.8
MP 107	7.5	6.7	7.1	4.7	4.0	4.3
PST-2SLX	7.2	6.3	6.8	5.5	4.5	5.0
Paragon	5.7	5.8	5.8	6.3	5.2	5.8
Promise	6.7	6.5	6.6	6.0	5.0	5.5
MP 103	7.5	6.5	7.0	5.5	3.5	4.5
CIS-PR 77	7.0	6.8	6.9	4.5	4.8	4.7
CIS-PR 81	5.7	6.3	6.0	3.7	4.3	4.0
Palmer III	5.2	5.8	5.5	4.5	4.8	4.7
Ascend	6.3	6.0	6.2	5.2	4.7	4.9
Majesty	6.0	5.8	5.9	4.5	4.7	4.6
PST-2CRR	5.8	5.8	5.8	4.7	4.0	4.3
PST-2SBE	6.3	6.0	6.2	3.3	3.8	3.6
CIS-PR 91	6.0	6.2	6.1	4.7	4.7	4.7
CIS-PR 70	6.3	6.0	6.2	4.3	4.8	4.6
CIS-PR 74	5.2	5.2	5.2	3.8	4.5	4.2
PST-CATS	6.0	6.0	6.0	4.0	4.2	4.1
CIS-PR 76	6.2	6.0	6.1	5.3	4.5	4.9
PST-2LA	5.8	6.2	6.0	4.3	4.0	4.2
Divine	5.2	5.2	5.2	5.0	3.7	4.3
PST-2RT	5.7	5.7	5.7	4.7	4.0	4.3
CIS-PR 119	5.5	5.5	5.5	4.3	4.5	4.4
PST-2M4	5.7	5.8	5.8	5.5	4.5	5.0
Catalina	5.2	5.8	5.5	4.5	3.7	4.1
Top Hat	4.3	5.2	4.8	4.8	4.7	4.8
Platinum	4.8	5.0	4.9	4.0	4.7	4.3
Charger II	4.3	5.3	4.8	4.2	3.8	4.0
PST-2JH	5.7	5.2	5.4	4.2	3.5	3.8
Manhattan 3	5.7	5.8	5.8	4.2	3.8	4.0
Premier	4.5	4.7	4.6	2.8	4.3	3.6
Evita	2.3	3.8	3.1	4.8	5.5	5.2
Essence	4.3	4.5	4.4	3.3	3.5	3.4
Boulevard	4.2	4.5	4.3	2.7	4.3	3.5
Road Runner	4.5	4.8	4.7	4.3	4.0	4.2
Rhapsodie	2.7	3.3	3.0	5.2	5.0	5.1
Affinity	3.8	4.3	4.1	4.3	3.8	4.1
R2	3.0	4.0	3.5	2.7	3.8	3.3
Renoir	3.0	3.2	3.1	2.7	4.3	3.5
Avenue	3.7	3.7	3.7	1.8	3.0	2.4
Elka	3.2	3.2	3.2	1.5	4.5	3.0
Gator II	3.5	4.5	4.0	3.7	4.3	4.0
Dali	3.3	3.2	3.3	2.2	4.0	3.1
Chagall	2.8	3.2	3.0	2.7	4.0	3.3
Buccaneer	3.7	4.2	3.9	4.2	3.7	3.9
Milton	3.0	3.5	3.3	2.7	4.3	3.5
YatsuGreen	2.8	3.5	3.2	3.2	3.2	3.2
Derby Supreme	3.2	3.2	3.2	2.8	3.7	3.3
Linn	1.5	1.3	1.4	1.7	2.5	2.1
LSD @ 0.05	**0.9**	**0.7**		**1.2**	**1.0**	

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Table 5.

Spike Characteristics of perennial ryegrass varieties grown near Tangent, Oregon in 2000 and 2001. Trial consisted of three replications with 20 plants per replication. LSD determined from two-way analysis of variance.

NAME	2000 Weight of 10 Spikes (mg)	2001 Weight of 10 Spikes (mg)	00-01 Weight of 10 Spikes (mg)	2000 Glume Length(mm)	2001 Glume Length(mm)	00-01 Glume Length(mm)	2000 Spikelet Length(mm)	2001 Spikelet Length(mm)	00-01 Spikelet Length(mm)	2000 No. of Florets	2001 No. of Florets	00-01 No. of Florets
Manhattan	3957	3167	3562	10.3	9.0	9.7	15.2	15.2	15.2	8.3	9.7	9.0
Linn	3730	2930	3330	14.0	11.7	12.8	19.5	16.6	18.1	9.7	9.7	9.7
Derby Supreme	3393	2853	3123	11.5	9.0	10.3	16.7	15.0	15.8	10.7	9.7	10.2
Brightstar II	3223	2840	3032	10.0	9.0	9.5	16.3	15.0	15.7	11.7	10.0	10.8
Manhattan II	3130	2693	2912	10.8	8.7	9.8	17.5	15.5	16.5	9.7	11.3	10.5
Essence	2870	2837	2853	10.3	8.5	9.4	12.7	13.0	12.8	9.7	10.3	10.0
Pinnacle	2843	2703	2773	9.7	7.7	8.7	17.0	15.0	16.0	11.7	11.0	11.3
Kokomo	2783	2523	2653	8.0	7.7	7.8	15.7	14.9	15.3	11.7	12.0	11.8
Stellar	2683	2410	2547	8.0	7.2	7.6	15.5	13.5	14.5	11.7	11.0	11.3
Cabo	2680	2707	2693	10.2	8.3	9.3	17.7	15.7	16.7	10.7	10.3	10.5
All*Star2	**2600**	**2587**	**2593**	**9.2**	**7.7**	**8.4**	**14.0**	**14.2**	**14.1**	**12.0**	**10.3**	**11.2**
CIS-PR 84	2493	2437	2465	7.0	7.5	7.2	12.8	10.5	11.7	10.7	9.3	10.0
Elka	2437	2480	2458	7.0	7.0	7.0	11.0	10.8	10.9	8.7	8.7	8.7
Gator3	2427	2380	2403	7.8	8.0	7.9	12.3	12.6	12.5	9.7	10.7	10.2
CIS-PR 75	2203	2230	2217	10.3	7.3	8.8	15.0	15.0	15.0	10.7	11.0	10.8
LSD @ 0.05	**325**	**314**		**2.6**	**1.8**		**1.9**	**1.9**		**2.2**	**1.5**	

Exhibit D

Table 6.

Seed Characteristics of perennial ryegrass varieties grown near Tangent, Oregon in 2000 and 2001. Trial consisted of three replications with 20 plants per replication. LSD determined from two-way analysis of variance.

NAME	2000 1000 Seed Weight (mg)	2001 1000 Seed Weight (mg)	00-01 1000 Seed Weight (mg)	2000 10 Seed Length (mm)	2001 10 Seed Length (mm)	00-01 10 Seed Length (mm)	2000 10 Seed Width (mm)	2001 10 Seed Width (mm)	00-01 10 Seed Width (mm)
Linn	3466.4	1971.9	2719.2	67.7	59.2	63.4	16.3	15.0	15.7
Derby Supreme	2427.8	1758.7	2093.3	53.0	43.5	48.3	13.3	14.3	13.8
Brightstar II	2376.7	1920.0	2148.3	54.3	44.8	49.6	14.0	13.8	13.9
Manhattan II	2281.1	1758.5	2019.8	63.3	54.1	58.7	13.3	13.5	13.4
Pinnacle	2213.2	1770.2	1991.7	59.3	55.7	57.5	13.3	14.5	13.9
Cabo	2154.2	1877.1	2015.6	54.0	44.9	49.5	13.3	13.8	13.6
Gator 3	2142.0	1874.5	2008.2	55.0	46.5	50.7	14.0	14.5	14.2
Kokomo	2116.3	1753.0	1934.6	56.0	53.3	54.6	13.3	15.1	14.2
All*Star2	**2030.6**	**1837.0**	**1933.8**	**49.7**	**47.0**	**48.3**	**13.0**	**13.1**	**13.1**
Manhattan	1978.6	1451.6	1715.1	60.7	52.6	56.6	13.0	14.3	13.7
CIS-PR 75	1946.8	1803.2	1875.0	51.3	45.3	48.3	13.3	12.8	13.1
Stellar	1762.0	1444.9	1603.5	53.0	43.9	48.5	12.3	14.5	13.4
Essence	1669.4	1638.9	1654.1	47.0	42.3	44.6	11.3	11.0	11.2
Elka	1530.6	1383.5	1457.0	51.7	44.0	47.8	12.0	12.2	12.1
CIS-PR 84	1439.5	1541.5	1490.5	51.7	42.3	47.0	12.0	12.4	12.2
LSD @ 0.05	**243.7**	**164.2**		**2.8**	**4.7**		**0.8**	**1.2**	

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EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Jas 3/14/05 DLF ~~Cebeco~~ International Seeds, ~~Inc.~~ and Rutgers, The State University of New Jersey (BT:5/3/2005)	CIS-PR 78	All*Star^2
4. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP, and Country)*	**5. TELEPHONE** *(Include area code)*	**6. FAX** *(Include area code)*
PO Box 229/175 West 'H' Street Halsey, OR 97348 USA	541-369-2251	541-369-2640
	7. PVPO NUMBER 200200217	

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain** [X] YES [ ]

9. Is the applicant (individual or company) a U.S. National or a U.S. based company? **If no, give name of country** [X] YES [ ] NO

10. Is the applicant the original owner? [X] YES [ ] NO **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

[ ] YES [ ] NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

[ ] YES [ ] NO If no, give name of country

11. Additional explanation on ownership *(If needed, use the reverse for extra space)*:

All*Star^2 was developed by ~~Cebeco~~ DLF (BT:5/3/2005) International Seeds using germplasm obtained from the New Jersey Agricultural Experiment Station.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.